

**WE CLAIM AS OUR INVENTION:**

1. An image system for processing image data, comprising:
  - a harmonization circuit supplied with image data comprised of grey-scale value signals in a grey-scale value range having a C-value defining a center of said grey-scale value range, said harmonization circuit automatically adjusting said grey-scale value signals to effect a contrast increase and simultaneously adjusting said grey-scale value range, to obtain a new grey-scale value range, retaining the C-value of said grey-scale value range in said new grey-scale value range, thereby obtaining adjusted grey-scale value signals; and
  - a presentation device connected to said harmonization circuit and supplied with said adjusted grey-scale value signals for presenting an image comprised of said grey-scale value signals.
2. An image system as claimed in claim 1 wherein the grey-scale value signals supplied to the harmonization circuit contain higher-frequency signal portions, and wherein said harmonization circuit automatically increases said contrast with an intensification of the higher-frequency signal portions.
3. An image system as claimed in claim 2 wherein said grey-scale value range has a dynamic boundary and wherein said harmonization circuit adjusts the grey-scale value range dependent on a higher-frequency signal portion, after intensification thereof, that is next to said dynamic boundary.

4. An image system as claimed in claim 3 wherein said harmonization circuit automatically determines an intensification factor for intensifying said higher-frequency signal portion so that said higher-frequency signal portion next to said dynamic boundary does not exceed said dynamic boundary.

5. An image system as claimed in claim 2 wherein said harmonization circuit adjusts said grey-scale value range so that none of the higher-frequency signal portions is excluded.

6. An image system as claimed in claim 1 comprising a user interface connected to said harmonization circuit allowing a user to selectively activate and deactivate said automatic contrast increase.

7. An image system as claimed in claim 1 wherein said harmonization circuit comprises a spatial frequency filter, having a filter parameter associated therewith, and wherein said harmonization circuit automatically increases said contrast dependent on said filter parameter.

8. An image system as claimed in claim 7 comprising a user interface allowing entry of said filter parameter, and wherein said harmonization circuit presents, at said presentation device, a proposal for said automatic contrast increase dependent on said filter parameter.